| MINERAL | SURVEY | No. | 4150 |
|---------|--------|-----|------|
|---------|--------|-----|------|

| *************************************** |  |
|---|--|
|   | ARIZONA Land District  |
|   | FIELD NOTES  OF THE SURVEY OF THE MINING CLAIM OF  |
|   | Magma Copper Company   |
|   | KNOWN AS THE   |
|   | Spring Lode:   |
| Pioneer                                 |  |
| Pin                                     | County, Arizona  |
| in the Cr                               | 25 and 36 , Township   S., Range   12 E., G. & S.R.M.  cook National Forest  med under instructions dated September 10, 19.31. |
|   | By Edwin T. Stewart U. S. Mineral Surveyor.  |
|   | Claim located February 4, , 19 14.   |
|   | Survey commenced September 17, 19.31.  |
|   | Survey completed September 21, 19 31.  |
|   | Address of claimant 's Attorneys Rice & Mathews, Globe, Arizona.   |
|   | DATES OF AMENDED LOCATIONS   |
|   |  |
| 6—822                                   | U. S. GOVERNMENT PRINTING OFFICE: 1997   |

This survey was made with a C. L. Berger & Sons engineers transit, No. 6217, with horizontal limb 6.25 ins. diameter, having two double opposite verniers and full vertical circle 5 ins. diameter, having one double vernier; the verniers read to one minute of arc; the eye piece of the telescope is equipped with a colored glass set in the dust shutter for making direct observations on the sun. An auxiliary telescope that may be used on top or at the side of the main telescope of the instrument is equipment for observations when the sun is too high for direct observations. The instrument was in good condition at the time of the survey, and all adjustments were checked and found in good order. Observations of the Sun for azmuth were made at the north end center and at the southeast corner of the Spring lode, one of these observations being reduced for time. The latitude was obtained from the township plat of T. 1 S., R. 12 E., and verified by an observation made at the time of executing the survey. The details of the observations are shown on the calculation sheets submitted herewith for examination. All azmuths in these notes are referred to the true meridian thus determined by the method of turned angles and calculated courses.

The lines were measured with 650 ft. and 50 ft. steel tapes made by the Lufkin Rule Company. The 650 ft. tape is graduated every foot, with an extra ft. before the zero mark graduated to tenths and hundredths of a ft. The 50 ft. tape is graduated to feet, tenths and hundredths. Both of these tapes have recently been compared with a tape of known length and found correct.

All the lines of the survey were run by direct methods except those that were traversed and calculated, and for which I submit calculation sheets herewith.

The magnetic variation observed at each corner of the survey is  $14^{\circ}$ -00' E.

| Feet    | SPRING LODE. A SPRING LODE.  |
|---------|--|
|         | Beginning at Cor. No. 1 of the Spring lode, which agrees with N. E. Cor. of the location.  |
|         | Set a standard 2 in. iron pipe, 3 ft. long, with brass cap mkd. 1-S-4150, 14 ins. below the surface, over a steel bar 5/8ths in. in diameter driven in a crack in the dacite bed rock, and surrounded it with a monument of stone for Cor. No. 1, from which |
|         | The corner of sections 25 and 36 on the east boundary of T. 1 S., R. 12 E., G. & S. R. M., bears S. 20°-59'-40" E. 688.59 ft. dist.; an iron post with brass cap, and mound of stone alongside; properly set and mkd.  |
|         | A point on dacite out crop bears N. 25°-27' W. 18.26 ft. dist.; mkd. X B.R1-4150.  |
|         | Thence S. 09°-40'-30" W.   |
| 1032.50 | Center of Miami-Superior Highway, bears N. 51° E. and S. 51° W.  |
| 1335.00 | Right bank of Queen Creek, course S. 73° W.  |
| 1387.00 |  |
| 1399.80 |  |
|         | Set a standard 2 in. iron pipe, 3 ft. long, with brass cap mkd. 2-S4150, on the dacite bed rock, over a 5/8ths in. steel bar grouted in drill hole with sulphur, and surrounded it with a monument of stone for Cor. No. 2, from which                       |
|         | A point on top of dacite boulder, 8 x 16 x 16 ft.out of the ground, bears N. 27°-46' W. 8.88 ft. dist.; mkd. X B.R2-S-4150.  |
|         | Thence S. 65°-10' W. orget. Observatore  |
| 215.00  | Left bank of Queen Creek, course S. 20° W.   |
| 300.10  | S. E. C. monument of the location; a monument of stone 4 ft. base, 3 ft. high.   |
| 372.00  | Right bank of Queen Creek.   |
| 596.20  |  |
|         | A 4 x 4 pine post, 4.7 ft. long, with copper plate mkd. Wit. Cor3-S-4150 nailed on top, and bolted to the northeast face of concrete retaining wall.   |
| 600.20  | Cor. No. 3, which agrees with S. W. Cor. of the location.  |
|         | This corner falls in the east side of the Miami-Superi-<br>or Highway where a monument above the surface would<br>interfere with traffic, so I   |
|         | Set a standard 2 in. iron pipe, 18 ins. long, with brass cap mkd. 3-S-4150, 5 ins. below the surface of the ground for Cor. No. 3, from which  |
|         | A point on the east face of dacite bluff bears S. 65°-10' W. 29.37 ft. dist.; mkd. X B.R3-S-4150.  |

Feet

Thence N. 09°-40'-30" E.

320.00 Center of Miami-Superior Highway, bears N.  $42^{\circ}$  E. and S.  $42^{\circ}$  W.

1399.80 Cor. No. 4, which agrees with N. W. Cor. of the location.

Set a standard 2 in. iron pipe, 3 ft. long, with brass cap mkd. 4-S-4150,3 ins. below the surface, over a 5/8ths in. steel bar driven in the dacite bed rock, and surrounded it with a monument of stone for Cor. No. 4, from which

A point on the west face of dacite bluff bears S. 56°-50' E. 16.24 ft. dist.

A point on the west side of a dacite stone,  $3 \times 4 \times 5$  ft., bears N.  $65^{\circ}$ -lo! E. 1.60 ft. dist.

Cor. No. 4 of Sur. No. 4093 Silver Tip Extension No. 1 lode, bears S. 35°-02'-40" W. 323.67 ft. dist.

Thence N. 65°-10' E.

300.10 N. E. C. monument of the location; a 4 x 4" pine post, with copper plate mkd. N. End Center Spring-4150, showing 3 ft. out of the ground and surrounded with a monument of stone.

600.20 Cor. No. 1, and place of beginning.

#### LODE LINE.

The presumed course of the vein of the Spring lode is N. 09°-40'-30" E. 320.0 ft. and S. 09°-40'-30" W. 1079.8 ft. from the discovery point.

AREA.

Total Area Spring lode,

15.894 Acres.

## LDCATION.

This survey is located in the S. E.  $\frac{1}{4}$  of sec. 25 and the N. E.  $\frac{1}{4}$  of sec. 36, T. 1 S., R. 12 E., G. & S. R. M., Pinal County, Arizona, in the Crook National Forest.

#### ADJOINING AND CONFLICTING CLAIMS.

The Silver Tip Extension No. 2 lode, unsurveyed, conflicts on the north; the Horse Shoe No. 2 lode, unsurveyed, lies across the middle of the Spring lode; and the Life Saver, Oak, New Lake, Magma and Magma No. 1 lodes, unsurveyed, adjoin and conflict on the east, south and west. All the foregoing mentioned lodes are owned by the claimant.

## EXPENDITURE OF FIVE HUNDRED DOLLARS.

I certify that the value of the labor and improvements made upon or for the benefit of the Spring lode by the claimant or its grantors is not less than \$500.00, and that said improvements consist of:

- The discovery shaft, 4 x 6 x 8 ft., the center of which is on the lode line of the Spring lode 320.0 ft. from the N. E. C. Value, \$40.00.
- A cut, 4 ft. wide, 8 ft. long, 9 ft. face and tunnel, 4 x 5.5 ft., 5 ft. long, the center of the toe of which bears S. 53°-48' W. 89.4 ft. from a point on the lode line 466.0 ft. from the N. E. C., and runs thence N. 67° W. to breast of tunnel. Value, \$40.00. No. 2
- A three compartment vertical shaft, 6 ft. 8 ins. by 15 ft. 4 ins. in the clear, 2305 ft. deep, timbered throughout, course of long way east and west, the S. E. corner of which bears S. 31°-48' W. 167.1 ft. from a No. 3 point on the lode line 90.3 ft. from the N. E. C.; a station, averaging 27 x 27 ft., 16 ft. high, at a depth of 115 ft. below the collar of the shaft, course of .sides east and west and north and south; and a tunnel, 8 x 8 ft., 578.5 ft. long, partially timbered, the center of the portal of which bears N. 27°-42' E. 823.85 ft. from Cor. No. 3 of the Sur., and which runs thence N. 57°-08' E. 88.18 ft.; thence N. 41°-06' E. 29.08 ft.; thence N. 07°-21' E. 29.13 ft.; thence N. 09°-29' W. 329.59 ft.; thence N. 10°-02' W. 102.52 ft. to its connection with the south side of the station at the south east corner thereof. Value of shaft, station and tunnel \$167.500.00 and tunnel, \$167,500.00.

In addition to the improvements described above the Spring lode participates in, and has credited to it, 1/145th interest in the common improvement described in my returns of Mineral Survey No. 4092, a shart on the Silver Tip lode, Sur. No. 2144.

Value, \$2908.28.

#### OTHER IMPROVEMENTS.

- A corrugated iron hoist house, 24 x 36 ft., the S. W. corner of which bears N. 22°-09' E. 971.6 ft. from Cor. No. 3; the long sides bear S. 87° E. Claimant herein.
- A.corrugated iron compressor house, 12 x 20 ft., the S. W. corner of which bears N. 27°-13' E. 921.7 ft. from Cor. No. 3; the long sides bear N. 40° W. Claimant herein.
- A corrugated iron change house, 14 x 20 ft., the N. E. corner of which bears N. 29°-29' E. 759.5 ft. from Cor. No. 3; the long sides bear N. 22° W. Claimant herein.

#### . OTHER CORNER DESCRIPTIONS.

Sur. No. 4093 Silver Tip Extension No. 1 lode: Cor. No. 4 is a standard 2 in. iron pipe, with brass cap properly set and marked, surrounded by a monument of stone.

The disagreement between the lines of the Spring lode as reported herein and the corresponding lines as described in the location notice is due to errors in the 

520.00 Canter of Might-Superior Highway, Dears 1. 48" F. and C.

Musics 1. 08-10:-40"

# FINAL OATHS FOR SURVEYS

### LIST OF NAMES

| A list of the names of the individuals em         | ployed by Edwin T.Stewart                                     |
|---|---|
| United States Mineral Surveyor, to assist in      | running, measuring, and marking the lines, corners, and       |
| boundaries described in the foregoing field not   | tes of the survey of the mining claim of                      |
| Nagma.  | Copper Company  |
| known as the Spring lode                          |   |
| and showing the respective capacities in which    |   |
|   | C.A. Pennington, Chainman.                                    |
|   | , Chainman.   |
|   | , Axman.  |
|   | , Flagman.  |
|   |   |
| FINAL OATH  | IS OF ASSISTANTS  |
| We,   |   |
| and I, C.A. Pennington                            | , do solemnly swear that we assisted                          |
| Edwin T. Stewart , United State                   | s Mineral Surveyor, in marking the corners and surveying      |
| the boundaries of the mining claim of             | Sagma Copper Company  |
| known as the Spring lode                          |   |
| represented in the foregoing field notes as hav   | ving been surveyed by said mineral surveyor and under his     |
| direction; and that said survey has been in all a | respects, to the best of our knowledge and belief, faithfully |
| and correctly executed, and the corner and bound  | lary monuments established according to law and the instruc-  |
| tions furnished by the Office Cadastral Engineer, | at Phoenix, Arizona.  Ca Penningle M., Chainman.              |
|   | 1/  |
|   | , Chainman.   |
|   | , Axman.  |
|   | , Flagman   |
|   | the above-named persons before me this 9th                    |
| day ofNovem                                       | ber , 19 31   |
| ly commission expires<br>December 3, 1932.        | Natara Dala's Gal   |
|   | Notary Public, Gila  County Arizone 6-1048                    |

County, Arizona.

## FINAL OATH OF U. S. MINERAL SURVEYOR.

| I, Edwin T. Stewart                              | , U. S. Mineral Surveyor,                                  |
|--|--|
|  | ructions received from the Office Cadastral Engineer,      |
| at Phoenix, Arizona                              | , dated September 10, 1931,                                |
| I have, in strict conformity to the laws of the  | e United States, the official regulations and instruc-     |
| tions thereunder, and the instructions of said   | Office Cadastral Engineer, faithfully and correctly        |
| executed the survey of the Mining Claim of       |  |
| Magma Copper Company                             | , known as the   |
| Spring   | lode   |
| situate in Pioneer                               | Mining District,   |
| Pinal  | County, Arizona , in Section s                             |
| 25 and 36 Township No. 1 S. R.                   | ange No. 12 E., G.& S.R.W., in the , 4150 , as represented |
|  |  |
|  | how the boundaries of said mining claim as distinctly      |
|  | escribed in the attached copy of the location certifi-     |
|  | ce Cadastral Engineer with said instructions, and          |
|  | ablished and perpetuated in strict accordance with         |
|  | nereunder; and I do further solemnly swear that the        |
|  | of said survey and my report therein, and that the         |
|  | said mining claim by claimant orits                        |
|  | the character, extent, location, and itemized value        |
| thereof are specified therein with particularity | y and full detail, and that no portion of said labor       |
| or improvements so credited to this claim has    | been included in the estimate of expenditures upon         |
| any other claim.                                 |  |
|  |  |
|  | Edwin ? Stewart  |
|  | U. S. Mineral Surveyor.                                    |
|  |  |
| Subscribed and sworn to by the said              | Edwin T.Stewart  |
|  | P. P. Greer a motary public,                               |
| day ofNovember, 1921                             | this 9th   |
| , 100  |  |
| My commission expires December 3, 1932.          | O S Sluw   |
| GOVERNM  | Notary Public, Gila<br>County, Arizona.                    |

## OFFICE CADASTRAL ENGINEER'S FINAL CERTIFICATE ON FIELD NOTES

# Department of the Interior

PUBLIC SURVEY OFFICE

| I, Office Cadas                         | stral Engineer at Phoenix, Arizona,   |
|---|---|
| lo hereby certify t                     | that the foregoing transcript of the Field Notes, return and approval of the surve  |
| of the mining claim                     | m of  |
|   | Magma Copper Company  |
| known as the                            | SPRING lode   |
| situate in                              | Pioneer   |
| Mining District                         | Pinal County Arizona  |
| in Section 8 25                         | <b>4</b> 36 Township No. 1 S., Range No. 12 E., ar                                  |
| lesignated as Surv                      | vey No. 4150 , has been correctly copied from the originals on file                 |
|   | id Field Notes furnish such an accurate description of said mining claim as will,   |
|   | patent, serve fully to identify the premises, and that such reference is made there |
|   | or permanent monuments as will perpetuate and fix the locus thereof.                |
|   | fy that Five Hundred Dollars worth of labor has been expended or improvemen         |
|   | or the benefit of, each location embraced in said mining claim by claimar           |
|   | or grantor  |
|   | rovements consist of 2 shafts, 1 cut, 1 station, and                                |
|   | value \$167.580, also a 1-145th interest, value \$290                               |
|   | orking shaft on the Silver Tip lode, Sur. No. 2144,                                 |
|   | TEMPORE THE TOP LEAD OF THE ROLL CARDS  |
|   |   |
|   |   |
|   |   |
|   |   |
| *************************************** |   |
|   |   |
| and that no portion                     | n of said labor or improvements has been included in the estimate of expenditure    |
|   |   |
| ipon any other clai                     |   |
| I further certif                        | im.   |
| I further certif                        | fy that the plat thereof, filed in the U.S. Land Office atPhoenix,                  |
| I further certif                        | fy that the plat thereof, filed in the U.S. Land Office atPhoenix,                  |

# CERTIFICATE OF APPROVAL OF FIELD NOTES AND SURVEY OF MINING CLAIM

# DEPARTMENT OF THE INTERIOR PUBLIC SURVEY OFFICE

| At Phoenix, Arizona,  |
|---|
|   |
| I, Office Cadastral Engineer at Phoenix, Arizona,   |
| do hereby certify that the foregoing and hereto attached Field Notes and Return of the Survey of the      |
| Mining Claim of   |
| Magma Copper Company  |
| , known as the  |
| SPRING lode   |
| ituate in mining district,  |
| Pinal County, Arizona,  |
| n SectionS 25 & 36 , Township No. 1 S. , Range No. 12 E.,   |
| designated as Survey No. 4150   |
| xecuted by, U. S. Mineral   |
| urveyor, September 17 - 21 , 1931, under my instructions dated  |
| September 10 , 1931, have been critically examined and the necessary                                      |
| orrections and explanations made, and the said Field Notes and Return, and the Survey they describe,      |
| re hereby approved. The certified copy of the location certificate filed by the applicant for survey is   |
| n file in this office and a true copy of said certified copy of said location certificate is included and |
| nade a part of the transcript of the field notes.  Office Cadastral Engineer.                             |